Arizona State Public Information Network (ASPIN)

(Central AZ (602)965-7000, Northern AZ (520)523-6508, Southern AZ (520)626-4642, e-mail - Nic-q@asu.edu, URL - http://aspin.asu.edu/) Arizona State Public Information Network (ASPIN), based at ASU, assists Arizona's public organizations and communities in connecting to the Internet. They've connected the three primary urban areas of Flagstaff, Phoenix, and Tucson with a state-wide backbone and within these urban areas they have provided connections to many organizations (over 50 in Phoenix). They then extended the backbone out to the state's eight rural community colleges and from their into their communities and have proposed to connect Arizona's K-12 schools to the backbone developing a robust educational network. ASPIN also staffs and supports three state-wide **Network Information Centers (NICs)** providing a one-stop ready reference point and help desk for Internet users.

Arizona Technology Access Program (AzTAP)

(2600 N Wyatt Dr., Tucson AZ 85712, (520)324-3170, fax (520)324-3176). The mission of the AzTAP is to increase access to assistive technology (AT) devices and services for individuals with disabilities and their families. Program staff work with consumers, service providers, state agencies, private industry, legislators and other interested individuals to facilitate the development of a statewide system to provide AT services. Though they don't currently host an Internet presence, online information is available from the **Disabilities Help Line of Arizona** at **Community Information and Referral Services** ((602)263-8856, (800)352-3792, e-mail - disabilities@cirs.org, URL - http://sunrise.cirs.org/disabilities.html).

Arizona Technology Incubator (ATI)

(1435 N Hayden Rd., Scottsdale, AZ 85257-3773, (602)990-0400, fax (602)970-6355) ATI is affiliated with Arizona State University and has 14 high-technology firms currently in an incubator program to aid their development and growth. They also work to transfer technology from the university and government sources to the private sector for licensing and commercialization.

Arizona Telecommunications and Information Council (ATIC)

(PO Box 1119, Tempe, AZ 85280-1119, (602)254-5887, e-mail - atic@rtd.com) ATIC is an economic development foundation under the Governor's Strategic Partnership for Economic Development (GSPED). Their mission is to drive implementation of an information applications and telecommunications infrastructure that will support economic growth in Arizona. ATIC provides a forum for telecom issues, education and advocacy involving a diverse range of public and private partners.

Arizona Telecommunications Community Computing (AzTeC Computing)

(c/o Telecomm. Services, Box 870201, Arizona State University, Tempe, AZ 85287-0201, (602)965-4156, 2400 baud modem (602)965-4151, >=9600 baud modem (602)965-6699, URL - http://aztec.asu.edu/) AzTeC is an Free-Net affiliated with the **National Public Telecomputing Network (NPTN)** and provide noncommercial access to the Internet. AzTeC serves up a variety of local information (including municipal background, news and events) and provides e-mail accounts and limited Internet access for approximately 12,000 Phoenix area residents (currently only local dial-in phone lines are provided but in southern Arizona, access through CACTI-NET). They are linked to many other nationwide and worldwide community-based Free-Nets and are working to site public access terminals in convenient locations throughout the community (10 in place so far).

Arizona Telecommuting Advisory Council (AzTAC)

(AZ Dept. of Admin. Travel Reduction Programs, 1700 W Washington, Room B-52, Phoenix, AZ 85007, (602)804-9099, fax (602)542-3636, information hot-line (602)504-1100) AzTAC is a statewide telecommuting advocacy group and information resource center, dedicated to making telecommuting a recognized alternative to travel for a broad range of needs. The national **Telecommuting Advisory Council (TAC)** with articles and telecommuting links is at URL - http://www.telecommute.org/ .

Community And City of Tucson Information NETwork (CACTI-NET)

(formerly **METCOM**) (John D'Andrea, City of Tucson Office of Economic Development, PO Box 27210, Tucson, AZ 85726-7210, (520)791-5093, fax (520)791-5413, modem (520)621-9600, URL - gopher://econ.tucson,az.us/) CACTI-NET allows Tucson citizens, businesspersons and those outside the area to access a broad spectrum of regional government, health, business and educational information as well as reach out to the Internet as the southern Arizona gateway to the **AzTeC Free-Net**.

Communications Workers of America (CWA)

(9224 N 5th St., Phoenix, AZ 85020, (602)331-7019, fax (602)861-4171) The CWA is a trade union which represents workers in several different fields. With the bulk of their members in the traditional telephone companies, they also represent workers in the printing industry, Maricopa Community College District, and Labor's Community Service Agency. There are 7 CWA Locals in Arizona, with the largest being Phoenix Local 7019 with 5,600 unionized workers.

Community Information and Telecommunications Alliance - Tucson Link

(4500 E Sunrise Dr., Suite Q-2, Tucson, AZ 85718, voice & fax (520)299-1486, e-mail - steven.peters@internetMCI.com, URL - http://tucsonlink.rtd.com/) Through public meetings, electronic communication and Action Teams, the Community Information and Telecommunications Alliance's Tucson Link supports the development and deployment of Tucson's information and telecommunications infrastructure. This information technology infrastructure of connectivity, public policy, applications and support will enable continued educational advancement, an enhanced quality of life and economic prosperity for Tucson's citizens.

Datalink Project

(URL - http://www.halycon.com/pickard/CANAMEX/) Datalink has been funded by the Arizona Legislature for study and pilot trials the last two years. It will facilitate trade within the Pacific NorthWest Economic Region (PNWER) and throughout the NAFTA (CANAMEX) trade corridor via the discovery, cataloging and routing of trade related information such as trade leads and access to databases about companies, government agencies, and industry focused associations. A pilot World Wide Web site is in operation with an abundance of trade links, but decisions on further development are pending.

Economic Development Information Centers (EDIC)

(Library Extension Division, 1700 W Washington, Suite 241, Phoenix, AZ 85007, (602)542-5841, fax (602)256-6372) Located throughout Arizona, 28 public and community college libraries have established Economic Development Information Centers to support their local business communities and provide the information local businesses and economic development practitioners need. A core collection of business reference materials and a staff person familiar with business resources, the local economy and community are available. The EDIC staff also provide referrals to other business information specialists and support organizations, as well as performing database searching and utilizing Internet access to meet the business patron's needs. Seed money came from the Federal Library Services and Construction Act while ongoing funding comes from local support and federal grants.

Electronic Commerce Net (ECNet)

(URL - http://enws324.eas.asu.edu/cimsys/projects/ecnet/ecnet.html) ECNet has been one of the first broadband metropolitan area networks (MAN) to be implemented in the cable industry. A joint pilot project of Cox Communications, Digital Equipment Corporation and Arizona State University, ECNet has connected Phoenix manufacturing companies to support collaborative engineering, improve productivity, enhance product quality and reduce time to market for new products. Utilizing the existing hybrid fiber/ coax cable network to achieve 10 Mbps Ethernet connectivity, ECNet can evolve to serve concurrent CAD, videoconferencing, multimedia warehousing, telecommuting and high-speed Internet access needs.

International Organization of Women in Telecommunications (IOWIT) - AZ Chapter
(c/o Susan Johnson, (602)506-1106, e-mail - sjohnson@tcom.maricopa.gov) IOWIT works to promote and enhance the image of women professionals in the telecommunications industry and business community.

Joint Interoperability Test Command (JITC) at Fort Huachuca
(Fort Huachuca, AZ 85613-7020, (520)538-5482, (800)538-5482, URL - http://jitc-emh.army.mil/) The JITC is the Department of Defense's newest, most modern facility for testing information, communication and intelligence systems. Its staff of more than 300 conduct a wide range of developmental, operational and standards conformance tests for private industry, the Department of Defense, our allies, and several federal agencies.

National Law Center for Inter-American Free Trade
(111 S Church Ave., Suite 200, Tucson, AZ 85701-1602, (520)622-1200, fax (520)622-0957, e-mail - natlaw@ccit.arizona.edu, URL - http://www.natlaw.com/) The National Law Center's vision and purpose is to facilitate trade and investment in the Western Hemisphere by standardizing key trade and investment documents and harmonizing trade and investment law. Their **InterAM** database (available to subscribers) is one of the most unique and comprehensive collections of Mexican legal materials.

NicheNet
(c/o Don Reck, Scottsdale Chamber of Commerce, (602)949-2167, fax (602)947-4523, e-mail - 76632.1441@compuserv.com) NicheNet is a small business interactive communications network, creating customer-specific marketing applications and business productivity tools for metropolitan area networks and the Internet. NicheNet also supplies computer and telecommunications assistance.

Northern Arizona University Network (NAUNet)
(Statewide Coordinator (520)523-6608) NAUNet is an instructional interactive television (distance learning) system encompassing over 20 independent sites throughout Arizona with an extensive microwave network. NAUnet's classrooms are on the campuses of NAU, ten community colleges, and five rural school districts. The **NAU Learning Alliance (nauLA)** is a network of more than 100 satellite downlink sites across Arizona that participate in NAU satellite programs. Also joining with Missouri, Oklahoma and Washington leaders in satellite education, NAU has formed **IdeaNet** to connect 2,000 schools in 33 states to an interactive television and computer network, as well as provide a wide range of programming.

Residential Utility Consumer Office (RUCO)
(15 S 15th Ave., Suite 104, Phoenix, AZ 85007, (602)542-3733, fax (602)542-3738) RUCO was formed to represent the interests of residential utility consumers in rate-related proceedings before the ACC.

Society for Technical Communications (STC) - Phoenix Chapter
(PO Box 67214, Phoenix, AZ 85082-7214, (602)553-4321) STC is a professional organization devoted to the advancement of the theory and practice of technical communications.

TeleCommunications Association (TCA) - Arizona Chapter
((602) 207-4808, fax (602) 207-4888) TCA represents the interests of end users of information technologies such as voice, data, video and image. TCA is an industry resource for regulatory issues, peer-to-peer networking and education.

Teleservices Industry Group (TIG)
(c/o Greater Tucson Economic Council, 33 N. Stone St., Tucson, AZ 85701, Fred Gould - (520)544-9733, URL - http://www.futurewest.com/gtec/tele.htm) TIG is a Tucson-based telephone call center trade association consisting of 19 firms representing more than 5,000 jobs and $225 million in combined sales.

Federal Government - Telecommunication Resources:
General Federal Access Points:
CapWeb
(URL - http://policy.net/capweb/congress.html) A part of **Policy Net** offering an extensive and well organized directory to Capitol Hill with emphasis on legislative activity and contacts but also information on the Executive and Judiciary branches. Campaign '96 and the Political Page link to political activity.

Federal Web Locator
(URL - http://www.law.vill.edu/Fed-Agency/fedwebloc.html) The Federal Web Locator is provided by Villanova Center for Information Law and Policy and intended to be the one stop shopping point for federal government information on the World Wide Web.

FedWorld Information Network
(URL - http://www.fedworld.gov/) The U.S. government's own primary entry point to Federal resources available on the Internet as provided by NTIS.

Federal Branches, Departments and Agencies:
Congress (THOMAS)
The THOMAS Legislative Information system provided by the Library of Congress is the primary access to Federal legislative resources available at: URL - http://thomas.loc.gov/
> **U.S. House of Representatives** operator (202)225-3121, URL - http://www.house.gov/
> **U.S. Senate** operator (202)224-3121, URL - http://www.senate.gov/
> **Office of Technology Assessment (OTA)** URL - http://www.ota.gov/
> > **Industry, Telecommunications, and Commerce (ITC)** URL - http://www.ota.gov/itc.html
> **(LEGI-SLATE** URL - http://gopher.legislate.com/, **C-SPAN** URL - http://www.c-span.org/)

Department of Agriculture (USDA)
(URL - http:www.usda.gov/) For telecommunications and Universal Service issues in relation to rural development and Federal loan and grant support, see the **Rural Economic & Community Development** agency (URL - http://www.rurdev.usda.gov/recdhome.html) and its **Rural Utility Services (RUS)** program (URL - http://www.rurdev.usda.gov/agency/rus/html/rus_home.html).

Department of Commerce (DOC)
(URL - http://www.doc.gov/) The responsibilities of DOC include expanding U.S. exports, developing innovative technologies, gathering and disseminating statistical data, measuring economic growth, granting patents, promoting minority entrepreneurship, predicting the weather and monitoring stewardship. A list of DOC agencies are on the Internet (URL - http://www.doc.gov/resources/doc.agencies.html) or you can use the **Commerce Information Locator Service (CILS)** (URL - http://www.doc.gov/inquery/cils.html).

The **National Telecommunications and Information Administration (NTIA)** (URL - http://www.ntia.doc.gov/) The NTIA is a primary driving force in the Federal efforts at defining and implementing a National Information Infrastructure (NII) to conduct commerce, educate, entertain and inform citizens. NTIA runs the **Telecommunications and Information Infrastructure Assistance Program (TIIAP)** providing assistance grants ($35.7 million matched by $60 million in non-Federal funds) for 117 demonstration and planning projects in 47 states and DC for 1995. The NTIA is very active on the Universal Service issue holding field hearings and publishing numerous white papers which are available on their Internet site. The NTIA has a research and engineering branch, the **Institute for Telecom Sciences (ITS)** at URL - http://www.its.bldrdoc.gov/ . Links to other telecommunication and information sources are also provided (URL - http://www.ntia.doc.gov/infsites.html).

The **National Institute of Standards and Technology (NIST)** (URL - http://www.nist.gov/) sponsors research and technology transfer related to the technological foundation of the National Information Infrastructure (NII) in areas such as computing, telecommunications, networking equipment, standards, and applications necessary to change the way people gather, process and share information. Access to NIST's **Advanced Technology Program (ATP)** (URL - http://www.atp.nist.gov/) is also available.

The DOC's **Office of Technology Policy (OTP)** runs the **Partnerships for a Competitive Economy (PACE)** (URL - http://www.doc.gov/pace/pacepge.html) helps American businesses to integrate technological innovation and advocate policy reform to promote competition in the global economy.

Other Department of Commerce (DOC) Internet sites of interest include:

Bureau of the Census   http://www.census.gov/
International Trade Administration (ITA)   http://www.itaiep.doc.gov/eebic/cduga.html
Patent and Trademark Office   http://www.uspto.gov/
Stat-USA (business and economic information)   http://www.stat-usa.gov/
     National Trade Data Bank (NTDB)   http://www.stat-usa.gov/BEN/Services/ntdbhome.html
     National Economic, Social and Environmental Data Bank (NESE)
        http://www.stat-usa.gov/BEN/Services/nesehome.html
     Economic Bulletin Board/Lite Edition (EBB/LE)
        http://www.stat-usa.gov/BEN/Services/ebbhome.html

Department of Defense (DOD)

The DOD's **Advanced Research Project Agency (ARPA)** (URL - http://www.arpa.mil/) is the central research and development organization for the DOD. It manages and directs selected basic and applied research and development projects for the DOD, and pursues research and technology where risk and payoff are both very high and where success may provide dramatic advances for traditional military roles and missions and dual-use applications. The DOD's **DefenseLINK** (URL - http://www.dtic.dla.mil/defenselink/) and **Defense Technical Information Web** (URL - http://www.dtic.dla.mil/dtiw/) provide access to a range of defense related technology information. **Defense TechTRANSIT** (http://www.dtic.dla.mil/techtransit/) supports technology transfer and dual use.

Department of Education (DOE)

(URL - http://www.ed.gov/) The mission of DOE is to strengthen the Federal commitment to assuring access to equal educational opportunity for every individual, as well as to supplement and complement the efforts of states, the local school systems and others, and improve the coordination, management and accountability of Federal education programs. They provide an abundance of programs and resources of interest to the educational community including grants promoting the NII in education, distance learning and the connection of educational institutions. DOE's **National Institute on Disability and Rehabilitation Research (NIDRR)** (URL - http://www.ed.gov/offices/) has programs and resources for disability rehabilitation and assistive technology (AT).

Department of Health and Human Services (DHHS)

(URL - http://www.os.dhhs.gov/) DHHS's **Community Services Network** is a prototype of a state-of-the-art computer and telecommunication system under development and evaluation to assess its viability to support the decentralization and coordination of health and human services for at-risk individuals. The **Social Security Administration (SSA)** is deploying kiosks to disseminate information and provide service and pursuing electronic benefits transfer (EBT) along with other DHHS agencies. The **National Library of Medicine (NLM)** (URL - http://www.nlm.nih.gov/) has long provided online medical databases (i.e., **MEDLINE**) and is now developing advanced health care applications such as rural telemedicine, teleradiology, computerized prescriptions and patient records, and linking health care facilities.

Federal Communications Commission (FCC)

(consumer assistance (202)418-0200, Infoline fax-on-demand (202)418-2830, URL - http://www.fcc.gov/)
The FCC is an independent regulatory commission created by Congress with primary responsibility for authorizing and regulating interstate communications services including the allocation of radio spectrum. Although its actions are independent of the Executive Branch, its decisions and other activities have been consistent with the Administration's NII goals. The FCC has been the primary force in the definition and evolution of Universal Service as detailed in the body of this report.

The **Common Carrier Bureau (CCB)** ((202)418-1500, URL - http://www.fcc.gov/ccb.html) regulates interstate wireline 'common carrier' services such as telephone and telegraph companies. The objective of regulation is to provide customers with rapid, efficient, nationwide and worldwide services at reasonable rates. The CCB's **Industry Analysis Division** (202)418-0940 conducts economic, financial and statistical analysis of the common carrier telecommunications industry. Some of their data and reports can be accessed through the Internet WWW or the Infoline fax-on-demand service, but the majority are only available in hardcopy or on **FCC-State Link** (modem (202)418-0241 and FedWorld telnet).

The **Cable Services Bureau (CSB)** (URL - http://www.fcc.gov/csb.html) studies and regulates the cable television industry. The **Mass Media Bureau (MMB)** (URL - http://www.fcc.gov/mmb.html) regulates television and radio stations and issues broadcast licenses specifying the community, channel and operating power of the station. The **Wireless Telecommunications Bureau (WTB)** (URL - http://www.fcc.gov/wtb.html) handles all domestic wireless telecommunications programs and policies, except satellite communications.

High-Performance Computing and Communications (HPCC) Program

(URL - http://www.hpcc.gov/) The HPCC Program seeks to extend U.S. technological leadership in high performance computing and computer communications by cooperation between government, industry, and universities. They support R&D leading to technology transfer and expect to spur gains in productivity and industrial competitiveness by integrating these technologies into the design and production process.

Information Infrastructure Task Force (IITF)

(URL - http://iitf.doc.gov) The IITF was formed to articulate and implement the Administration's vision for the NII. The IITF includes high-level representatives of the Federal agencies that play a major role in the development and application of information and telecommunications technologies and is chaired by Secretary of Commerce Ronald H. Brown. IITF's **Information Policy Committee (IPC)** (URL - gopher://ntiant1.ntia.doc.gov:70/11s/iitf/infopol) identifies and suggests critical information policy that must be addressed if the National Information Infrastructure is to be fully deployed and utilized. Its working groups include Intellectual Property, Privacy, and Government Information. IITF's **Telecommunications Policy Committee (TPC)** (URL - gopher://ntiant1.ntia.doc.gov:70/11s/iitf/telecom) formulates a consistent Administration position on key telecommunications issues taking into account the current technological, marketplace, and regulatory policy developments. TPC's working groups include Universal Service, Network Reliability and Vulnerability, International Telecommunications, Legislative Drafting, and NII Securities Issues. IITF's **Committee on Applications and Technology (CAT)** (URL - gopher://ntiant1.ntia.doc.gov:70/11s/iitf/appstech) coordinates the Administration's efforts to develop, demonstrate and promote applications of the NII and to develop and recommend technology strategy and policy to accelerate its implementation. CAT's working groups include Technology Policy, Government Information Technology, and Health Information and Applications. The **NII Virtual Library** (URL - http://nii.nist.gov/nii.html) provides Internet access to background, publications and resources support the vision and activities of the IITF and Federal NII development. Information about the **NII Advisory Council (NIIAC)** (URL - http://iitf.doc.gov/AdCoun.html) is also available.

Library of Congress (LOC)

(URL - http://www.loc.gov/) The Library of Congress is using the World Wide Web (WWW) to present information about and materials from its collections over the Internet. One can not only search the LC Online Systems for library holdings but view items from digitized historical collections and exhibits. The LOC developed and maintains **THOMAS** (URL - http://thomas.loc.gov/) and provides a subject oriented index of Web sites, their **Global Electronic Library** (URL - http://lcweb.loc.gov/global/globalhp.html).

National Academy of Sciences (NAS)

(URL - http://www.nas.edu/) The NAS was created in 1863 to provide independent, objective scientific advise to the nation and includes the **National Academy of Engineering (NAE)**, the **Institute of Medicine (IOM)**, and the **National Research Council (NRC)**. They have a wide range of science and research publications available online including several important to the NII policy process.

National Aeronautics and Space Administration (NASA)

(URL - http://www.nasa.gov/) NASA has always lead in the transfer of technology and dissemination of aeronautic and space information. It has a strong Internet presence supporting scientific development and educational outreach. Access to **NASA Centers**, a gallery of resources and the **Mission to Planet Earth** is provided. NASA continues to advance space-based telecommunications with their **Advanced Communications Technology Satellite** (URL - http://kronos.lerc.nasa.gov/acts/acts.html) program.

National Science Foundation (NSF)

(URL - http://www.nsf.gov/). The NSF was established in 1950 to promote the progress of science and engineering, advance the national health prosperity, and welfare, and to secure the national defense. Their **NSFNET** fostered much of the early growth of the Internet, connecting more than 1,200 U.S. colleges and universities and facilitating the connection of over a thousand high schools, libraries, medical schools, and public health facilities. They continue to develop and promote the NII in education (Global Schoolhouse, Superquest), commercial applications, and in conjunction with ARPA and private sector collaboration, perform very high-speed communications network developing and testing.

National Technical Information Service (NTIS)

(URL - http://www.fedworld.gov/ntis/ntishome.html) NTIS is a U.S. Department of Commerce (DOC) agency, but since it operates on the revenue from the sale of information, most of their products are available from them or commercial vendors at some cost. NTIS provides most of the scientific, technical, and engineering documents (plus other topics and subjects) released by the U.S. government during the past 50 years. Some notable products are the **NTIS Bibliographic Database**, **Federal Research in Progress (FEDRIP)**, **Foreign Broadcast Information Service** and **World News Connection**.

Smithsonian Institution

(URL - http://www.si.edu/start.ht) The Smithsonian, with its dozens of museums and research centers, brings its best to the Internet as the **Electronic Smithsonian**. A content rich, exciting and informative site supporting educational, cultural, and research needs of the nation in innovative ways.

The White House - Executive Branch

(URL - http://www.whitehouse.gov/) The White House has a popular Internet site providing a view of the **Executive Branch**, the ability to explore NII and other policy issues, and the opportunity and encouragement for citizens to send feedback. Archives for the present administration are available at **Texas A&M** (URL - http://www.tamu.edu/whitehouse/). The **Office of Science and Technology Policy** (URL - http://www.whitehouse.gov/OSTP.html) provides the President with timely policy advice and advances the Administration's agenda in fundamental science, education and scientific literacy, investment in applied research, and international cooperation.

State Government - Telecommunication Resources:

Council of Governors' Policy Advisors (CGPA)

(Hall of the States, 400 N Capitol St., Suite 390, Washington, D.C. 20001-1511, (202) 624-5386, fax (202) 624-7846) Founded in 1964, the Council of Governors' Policy Advisors is a membership organization of the key policy and planning advisors to the nation's Governors. It provides a forum for chiefs of staff, policy directors, agency heads and other top policy advisors to share ideas on policy development and to debate critical issues. They offer technical assistance with the policy development process and with specific policy issues as well as a variety of publications including coverage of rural and economic development issues.

The Council of State Governments (CSG)

(3560 Iron Works Pike, PO Box 11910, Lexington, KY 40578-1910, (606)244-8000, SIC inquiries (606)244-8253, fax (606)244-8001, URL - http://www.csg.org/) The Council of State Governments champions excellence in state government, works with state leaders across the nation and through its regions to put the best ideas and solutions into practice. Their publications include an annual encyclopedia of state government, directories of state leadership by various branches and functional groupings, issue briefs and backgrounds, suggested state legislation, and regional guides. They run the **States Information Center (SIC)** and the **Center for State Trends** and Innovations providing research, resource sharing, trends, and forecasts. Their home page offers links to state, federal, and international government sites.

National Association of Regional Councils (NARC)

(1700 K Street, NW, Suite 1300, Washington, D.C. 20006, (202)457-0710, fax (202)296-9352, URL - http://narc.org/narc/index.html) NARC is a non-profit membership organization of public agencies engaged in regional planning and policy coordination for local governments in both urban and rural areas.

National Association of Regulatory Utility Commissioners (NARUC)

(1102 Interstate Commerce Commission Building, PO BOX 684, Washington D.C., 20044-0684, (202) 898-2200, fax (202)898-2213, URL - http://www.puc.state.tx.us/naruc-hp.htm) Founded in 1889, NARUC is a quasi-governmental, non-profit organization whose members include regulatory bodies of the 50 states, Washington, D.C., Puerto Rico and the Virgin Islands. They seek to improve the quality and effectiveness of public regulation in America and produce a large quantity of research reports and publications on utility issues including communications. The annual Compilation of Utility Regulatory Policy is a virtual encyclopedia of utility regulatory policy and their Universal Service Project (most recent report 7/94) actively tracks and proposes positions on Universal Service issues. Their home page offers links to state and federal regulatory agencies.

National Association of State Information Resource Executives (NASIRE)

(167 W Main St., Suite 600, Lexington KY 40507, (606) 231-1885, fax (606) 231-1928, URL - http://www.state.ky.us/nasire/NASIREmain.html) NASIRE provides a forum for senior policy-level information resource executives dealing with information technology in a government environment. Two of their five key issues are public access to government, and leveraging and developing the information infrastructure. Their publications include an annual directory, biennial state-by-state survey, issue focus reports, and state federal issues briefs. From their home page, **StateSearch** serves as a topical clearing house to state government information on the Internet (currently 1,357 entries in 22 categories).

National Association of State Telecommunications Directors (NASTD)

(3560 Iron Works Pike, PO BOX 11910, Lexington KY 40578-1910, (606)244-8187, (606) 244-8001, URL - http://www.csg.org/nastd.html) NASTD is a professional organization whose mission is to provide a forum for the sharing of information among states, develop and promote public policy for

telecommunications, and develop the telecommunications infrastructure with the overall goal of improving the operational efficiency of state government and the social and economic welfare of the nation. Their annual State Report compiles information on each state's telecommunications agency's statutory responsibilities, state regulatory and legislative activities, on-going and new state projects, requests for proposals, and the strategic direction of the state's telecommunications initiatives.

National Association of Telecommunications Officers and Advisors (NATOA)

(1200 19th ST NW, Suite 300, Washington, D.C. 20036, (202)429-5101, URL - http://www.natoa.org/) NATOA provides a forum for municipal, county, state and regional officials and agencies engaged in the regulation, administration, programming or planning of cable and/or telecommunications systems.

National Conference of State Legislatures (NCSL)

(444 N Capitol St. NW, Suite 515, Washington, D.C. 20001, (202)624-5400, fax (202) 737-1069, URL - http://www.ncsl.org/) The NCSL was founded in 1975 as a bipartisan organization dedicated to serving the lawmakers and staffs of the nation's 50 states, its commonwealths and territories and providing a voice for state interests before Congress, the administration and federal agencies. They are a source for research, publications, consulting services, meetings and seminars.

National Governors' Association (NGA)

(Hall of the States, 444 N Capitol St., Suite 267, Washington D.C. 20001-1572, (202)624-5392, fax (202)624-5313, e-mail - jaykayne@mnsinc.com) The NGA deals collectively with issues of public policy and governance. Their ongoing mission is to support the work of the Governors by providing a bipartisan forum to help shape and implement national policy and to solve state problems. The NGA **Center for Policy Research** has five divisions including the Economic Development and Commerce Policy Studies Division which covers telecommunications issues. Their publication "Telecommunications: The Next American Revolution" (1994) is of particular interest. An Internet site is under development, but their working group, **Science and Technology Council of the States (STCS)** is at URL - http://www.csn.net/~pvb/stcs.html .

The National Regulatory Research Institute (NRRI)

(1080 Carmack Rd, Columbus, OH 43220, (614)292-9404, fax (614)292-7196, URL - http://www.eng.ohio-state.edu/nrri.html) The NRRI was established by NARUC in 1976 at Ohio State University and provides a variety of in-depth research reports on utility regulatory issues including dozens on telecommunications regulation. Their publication "Universal Service in the US: Dimensions of the Debate" (1994) is an excellent overview and analysis of state policy issues.

The State Networking Project

((512)471-3241, fax (512)471-1582, URL - http://www.tenet.edu/snp/main.html) The State Networking Project is a nationwide collaborative effort on long-range planning for the integration of an information infrastructure to support the needs of the K-12 educational community. Their WWW site offers individual state surveys of K-12 network activity and a summary report "Networks for Goals 2000 Reform."

Western Governors' Association (WGA)

(600 17th St., Suite 1705 South Tower, Denver, CO 80202-5452, (303)623-9378, fax (303)534-7309) WGA is an independent, non-partisan organization of Governors from 18 western states, two Pacific territories and one commonwealth. They were formed in 1984 to provide strong leadership in an era of critical change in the economy and demography of the West by developing regional policy, conducting research and publishing their findings and analysis. Their **SmartStates** initiative is exploring regionally networked government services, a "virtual university," Electronic Benefits Transfer (EBT), and rural health initiatives including telemedicine.

Telecommunication Industry Trade Associations:

Alliance for Competitive Communications (ACC)
(1133 21st St. NW Suite 700, Washington, D.C. 20036, (202)973-5300, URL - http://bell.com/) The ACC is coordinating the seven Bell telephone companies' effort to open communications markets and seeks to build coalitions with others who share the goal of fostering competition among local telephone companies, long distance carriers and cable television concerns. Their Internet site has background and timely updates on Congressional telecommunications reform activities and links to their RBOC members and other telecommunications policy issue sites. For an often opposing view of telecommunications reform, see the **Competitive Long Distance (CLD) Coalition** (URL - http://www.cldc.com/) consisting of ACTA, AT&T, CompTel, LDDS WorldCom, MCI, Sprint and TRA.

Cellular Telecommunications Industry Association (CTIA)
(1250 Connecticut Ave. NW Suite 200, Washington D.C., 20036, (202)785-0081, fax (202)785-0721, URL - http://www.wireless-apps.com/ctia/index.html) CTIA represents all wireless technologies, promoting legislative, regulatory and judicial decisions that further the success and availability of wireless telecommunications, and providing information on the latest technical & public policy developments in the wireless industry. They publish periodic Wireless SourceBook, FactBook, MarketBook, and MemberBook, as well as other resource materials. Some background, data and industry updates are available from their fax-on-demand service at (202)736-3250.

Commercial Internet eXchange (CIX) Association
(PO BOX 1451, Sterling, VA 20167-9998, (703)824-9249, URL - http://www.cix.org/) The CIX Association is a non-profit trade association of Public Data Internetwork service providers promoting and encouraging development of the public data communications internetworking services industry in both national and international markets. CIX provides for interconnection of all members for unrestricted data traffic without charges. Their Internet site carries policy white papers, regulatory and legislative information relevant to Internet Service Providers (ISPs).

International Communications Industry Association (ICIA)
(3150 Spring Street, Fairfax VA, 22031-2399, (703)273-7200, fax (703)278-8082, URL - http://www.usa.net/icia/) ICIA represents for-profit organizations and individuals who are involved in commercializing or utilizing communications technologies including more than 1500 members selling video, audio-visual and computer products and services to business and industry, government, education and health markets. Their Internet site carries content from the Communications Industries Report (CIR).

International Telecommunications Union (ITU - CCITT)
(Information Services Dept., Place des Nations, 1211 Geneva 20, Switzerland, (+41 22) 730-6666, URL - http://www.itu.ch/) The ITU is an international organization within which governments and the private sector coordinate global telecom networks and services. ITU activities include the coordination, development, regulation and standardization of telecommunications and the organization of regional and world telecom events. Their Internet site provides extensive links to related WWW sites

International Television Association (ITVA)
(6311 N. O'Connor Rd., Suite 230, Irving, TX 75039, (214)869-1112, fax (214)869-2980, URL - http://www.itva.org/) ITVA is devoted to providing accomplished visual communicators with professional and business development opportunities promotes the growth, quality and success of film, video and multimedia communications and related businesses. Their Internet site provides links to video and multimedia resources and a Green Pages (Professional Services Directory) of members.

MultiMedia Telecomm Association (MMTA)

(formerly **North American Telecommunications Association - NATA**) (2000 M St., NW, Suite 550, Washington D.C. 20036-3367, (800)538-6282, (202)296-9800, fax (202)296-4993, URL - http://www.mmta.org/) MMTA is a member-led organization of five technology-specific divisions: Voice/Multimedia, Computer-Telephone Integration, LAN/WAN Internetworking, Wireless Communications, and Collaboration/Conferencing/ Messaging. MMTA was formed to respond to changes within the telecommunications industry associated with the convergence of multiple technologies including voice, data, video and networking. Their publications include the biweekly Washington Update on public policy trends, an annual Telecommunications Market Review & Forecast, an Industry Source Book and a Directory of Telecommunications Schools and Institutions.

National Association of Broadcasters (NAB)

(1711 N. Street NW, Washington, D.C. 20036-2891, (202) 429-5300, URL - http://www.nab.org) NAB seeks to ensure the viability and strength of America's free, over-the-air radio and television broadcasters and serve as a practical, technical and educational resource for the entire industry. NAB believes the American public is best served by a broadcasting system that provides programming free of government intervention and reflecting local interest and audience choice. Their Internet site provides research and information briefs, an online newsletter and a Library & Information Center including links to related sites.

National Cable Television Association (NCTA)

(1724 Massachusetts Ave., NW, Washington, D.C. 20036-1969, (202) 775-3550, fax (202) 775-3675) NCTA's mission is to advance the cable television industry's public policy interests before Congress, the executive branch, the courts and the American public; and to promote the industry's operating, programming and technological developments. Their publications include The Cable Television Handbook, Cable Television Developments (3 times a year), Linking Up (bimonthly newsletter on community and public relations projects), and Programmers' Sourcebook: A Guide to Program Buyers.

National Exchange Carriers Association (NECA)

(100 S. Jefferson Rd., Whippany, NJ 07981, (201)884-8000, fax (201)884-8469) NECA was formed in 1983 at the direction of the FCC as a membership association of local telephone companies. They are a leading integrating force for the maintenance and evolution of Universal Service in that they administer the national **Universal Service Fund** and **Lifeline Assistance** programs as well as providing tariff and revenue distribution services to exchange carriers. NECA also administers the **Telecommunications Relay Services** fund and the Vermont Universal Service Fund. They periodically perform a comprehensive survey the telecommunications infrastructure in rural America (most recently in 1993).

National Rural Telecom Association (NRTA)

(1455 Pennsylvania Ave., NW, Suite 1200, Washington, D.C. 20004, (202)628-0210, fax (202)628-2482) The primary objective of the NRTA is to preserve the role of the Rural Electrification Administration in providing a vital program of universal and affordable telephone service to rural America.

National Telephone Cooperative Association (NTCA)

(2626 Pennsylvania Ave., NW, Washington, D.C. 20037-1695, (202)298-2300, fax (202)298-2320, e-mail: frs@ntca.org) The NTCA is a nonprofit association representing nearly 500 small and rural telephone cooperatives and commercial companies. NTCA offers a highly effective government affairs program, expert legal and industry representation, educational services, regular and special publications and national and regional meetings. Their **Foundation for Rural Service (FRS)** acts to inform and educate the public on the rural telecommunications industry and to improve the quality of life throughout rural America.

Organization for the Protection and Advancement of Small Telephone Companies

(OPASTCO) (21 Dupont Circle, NW, Suite 700, Washington, D.C. 20036, (202)659-5990, fax (202)659-4619, URL - http://www.assocdata.com/opastco/opastco.html) OPASTCO is a national organization whose local exchange carrier (LEC) members serve telephone subscribers in rural America. Their "Keeping Rural America Connected: Costs and Rates in the Competitive Era" is a superb reference and resource on rural telecommunications issues. OPASTCO's 33rd Annual Winter Convention will be held in Phoenix, Arizona on January 13-17, 1996.

TeleCommunications Association (TCA)

(701 North Haven Ave., Suite 200, Ontario, CA 91764-4925, (909)945-1122, fax (909)483-3888, URL -http://www.dfrontiers.com/tca/) TCA provides a forum to support and encourage dialogue among telecommunications users and within the information technology industry, to improve quality and achieve cost-effective communications solutions, to educate member representatives, and to lead the industry by establishing and maintaining liaisons with regulatory agencies and industry partners, vendors and suppliers.

United States Telephone Association (USTA)

(1401 H St. NW, Suite 600, Washington, D.C. 20005-2136, (202)326-7300, fax (202)326-7333, URL - http://www.usta.org/) USTA is a broad-based national trade association of the local exchange carrier industry with nearly 1,100 members representing over 99% of the nation's access lines. Their central purpose is to promote the general welfare of the telephone industry, to collect and disseminate information relative to the industry, and to provide a forum for the discussion and resolution of issues of mutual concern. Their publications include a bimonthly magazine Teletimes, Phone Facts (updated annually) as well as Statistics of LECs.

Western Alliance

Rocky Mountain Telecommunications Association (RTMA) (PO Box 2746, Pinetop, AZ 85935, (520)367-0300, fax (520)367-2233) and **Western Rural Telephone Association (WRTA)** (PO Box 841, Santa Rosa, CA 95402, (707)538-7755, fax (707)538-0844) The Western Alliance is a coalition of RMTA (representing 7 western states) and WRTA which represents primarily small, rural local exchange carriers, often borrowers from the Rural Electrification Administration, serving customers in the 23 states west of the Mississippi and Pacific territories.

Associations, Foundations and Interest Groups:

Alliance for Public Technology

(PO BOX 28578, Washington, D.C. 20005-2301, (202)498-1403, fax (202)408-1134, URL - http://server.idi.net/apt/) APT is a Washington, D.C. based nonprofit, "grassroots" coalition of public interest groups and individuals whose goal is to foster broad access to affordable, usable information and communication services and technology. Their Internet site provides background and positions on Universal Service, telecommunications reform, telemedicine, privacy and other areas of policy interest.

American Communications Association (ACA)

(URL - http://www.uark.edu/depts/comminfo/www/ACA.html) The ACA, based at the University of Arkansas, is the national professional organization of scholars, students, and practitioners in the field of communication studies. Their Internet site provides a collection of materials on communication law and First Amendment issues, resources for teaching and research in communications studies, and an extensive reference resource page for scholars and activists.

American Library Association (ALA)

(50 E. Huron St., Chicago IL 60611, (800)545-2433, (312)944-6780, fax (312)944-8520, URL - http://www.ala.org/) The ALA represents all types of libraries - public, school, academic, state and special. The ALA has recently embarked on ALA Goal 2000, a new initiative that recommends the establishment of an **Office for Information Technology Policy** and the creation of an independent charitable foundation called the **Fund for America's Libraries**.

American National Standards Institute (ANSI)

(URL - http://www.ansi.org/) ANSI develops and evolves technical standards for many engineering and telecommunications technologies and applications. Its **Information Infrastructure Standards Panel (IISP)** (URL - http://www.ansi.org/iisp/iisphome.html) is developing standards requirements for advanced information applications including copyright concerns. For telecommunications standards, also see the **International Standards Organization (ISO)** (URL - http://www.iso.ch/) as well as the **Institute of Electrical and Electronic Engineers (IEEE)**, the **International Telecommunications Union (ITA - CCITT)** and the **Internet Engineering Task Force (IETF)** described elsewhere in this appendix.

American Society for Information Science (ASIS)

(8720 Georgia Ave., Suite 501, Silver Springs, MD 20910, (301)495-0900, fax (301)495-0810, e-mail - asis@cni.org) ASIS is a professional society advocating the development, sharing and use of information and is involved with promoting multidisciplinary techniques and technologies in library and information science, communications, networking technology, and computer science.

The Annenberg Washington Program in Communications Policy Studies

(The Willard Office Bldg, 1455 Pennsylvania Ave. NW, Suite 200, Washington, D.C. 20004-1008, (202)393-7100, fax (202)638-2745, URL - http://www.annenberg.nwu.edu/) The Annenberg Washington Program in Communications Policy Studies of Northwestern University has supported or produced more than 145 publications and distributed more than 652,000 copies of them since its founding in 1983. Many concern the National Information Infrastructure, Universal Service and other aspects of governmental and citizenry telecommunications policy.

The Aspen Institute

(1333 New Hampshire Ave. NW, Suite 1070, Washington, D.C. 20036, (202)736-5800, fax (202)467-0790, URL - http://www.aspeninst.org/) The Aspen Institute brings enduring ideas and values to bear on issues of practical leadership in today's world. It accomplishes this through nonpartisan seminars and policy programs designed for leaders in business, government, the media, education, and the independent sector from democratic societies worldwide. Many publications of interest are available for nominal cost from their **Communications and Society Program** (and some or parts thereof available on their Internet site) such as Crossroads on the Information Highway, The Knowledge Economy: The Nature of Information in the 21st Century, and Toward an Information Bill of Rights and Responsibilities.

Association of Research Libraries

(1527 New Hampshire Ave. NW, Washington, D.C. 20036, (202)232-2466, fax (202)462-7849, URL - http://arl.cni.org/). The mission of the ARL is to identify and influence forces affecting the future of research libraries in the process of scholarly communication. ARL programs and services promote equitable access to, and effective use of recorded knowledge in support of teaching, research, scholarship, and community service. Their publications include many task force reports and conference proceedings concerned with information policy, intellectual property and citizen access issues.

Benton Foundation's Communications Policy Project

(fax-on-demand (800)254-1671, URL - http://www.cdinet.com/Benton/) The Benton Foundation's Communications Policy Project promotes public interest values and noncommercial services for the National Information Infrastructure through research, policy analysis, print, video, and online publishing, and outreach to non-profits and foundations. Their Internet site provides detailed analysis and timely updates on pending Federal telecommunications legislation and regulation, links to other telecommunications resources (Cyber pages), and the full version of many bulletins, briefings and working papers including many on Universal Service as well as telecommunications and democracy (see Appendix A - Bibliography for details).

Carnegie Mellon University (CMU)

(CMU URL - http://www.cmu.edu/, NetBill Project URL - http://www.ini.cmu.edu/netbill/) CMU's **Information Networking Institute** has a project **NetBill** which offers an electronic payment scheme for buying goods and services over the Internet. The transaction protocol is especially designed to handle low cost items (i.e., journal articles at 10 cents a page) which will enable new kinds of electronic commerce.

The Cato Institute

(1000 Massachusetts Ave., NW, Washington, D.C. 200001-5403, (202)842-0200, fax (202)842-3490, URL - http://www.cato.org/) The Cato Institute is a nonpartisan public policy research foundation founded in 1977. They have an extensive publication program on a broad spectrum of policy issues and make a good cross-section available on their Internet site as well as links to other public policy resources.

CAUSE - Association for Managing and Using Information Resources in Higher Education

(4840 Pearl East Circle, Suite 302E, Boulder, CO 80301, (303)449-4430, fax (303)440-0461, URL - http://cause-www.colorado.edu/) CAUSE's mission is to enable the transformational changes occurring in higher education through the effective management and use of information resources.

The Center for Advanced Study in Telecommunications (CAST)

(3016 Derby Hall, 154 S Oval Mall, Columbus, OH 43210-1339, (614)292-8444, URL - http://express.sbs.ohio-state.edu/cast/) CAST (at Ohio State University) facilitates the processing and transformation of information and people with interests in telecommunication by providing a clearing house for researchers, government agencies and telecommunications businesses and by acting as a "level playing field" for discussion of telecommunications issues. Their research areas include distance education, telemedicine, and telecommunications and economic development. A series of occasional papers on telecommunications, CAST Working Files, are available on their Internet site.

The Center for Civic Networking (CCN)

(PO BOX 65272, Washington, D.C. 20035, (202)362-3831, URL - http://www.civic.net:2401/ccn.html) The CCN is a non-profit organization dedicated to applying information infrastructure to the broad public good - such as improving delivery of service by local governments, improving access to information that people need in order to function as informed citizens, and providing "electronic town halls" to broaden citizen participation in governance. Their Internet site provides policy statements and analyses, reviews and portions of books, as well as links to a variety of civic networking and telecommunication resources.

The Center for Democracy and Technology (CDT)

(1001 G Street NW, Suite 700 East, Washington, D.C. 20001, (202)637-9800, fax (202)637-0968, URL - http://www.cdt.org/) The Center For Democracy and Technology is a non-profit public interest organization whose mission is to develop and advocate public policies that advance constitutional civil liberties, privacy and democratic values in new computer and communications technologies.

Center for Media Education (CME)
(URL-http://www.access.digex.net/~cme/) CME is a non-profit public interest group focused on communications policy issues to promote the democratic potential of electronic media.

Center for the New West
(600 World Trade Center, 1625 Broadway, Denver, CO 80202, (303)572-5400, URL-http://www.commerce.com/cnw/) (Phoenix Office: 7319 N 16th St. Suite 100, Phoenix AZ 85020, (602)861-0533) The Center for the New West is an independent, nonprofit and nonpartisan institution for policy research, emphasizing trade, technology and economic development issues. The Center's current programs include the **Institute for Information Law and Policy** exploring how the NII can create new jobs and help US companies compete and providing management support and policy development to the **National Information Infrastructure Testbed (NIIT)**, the **Institute for Telework**, the **Institute for Telemedicine**, and the **Institute for the New American Workforce**.

Centre for Policy Research on Science and Technology (CPROST)
(URL - http://edie.cprost.sfu.ca/) CPROST at Simon Fraser University (Canada) researches the relationship between public policy, the management of technology and innovation. They focus on small, medium and large enterprises in the global economy investigating how innovation can further competitiveness and sustainability in firms and organizations.

Center for Strategic and International Studies (CSIS)
(1800 K Street, Suite 400, Washington, D.C. 20006, (202)775-3266, URL - http://www.csis.org/) CSIS is a public policy research institution dedicated to policy analysis and impact. They maintain resident experts on all the world's major geographical regions and cover many key functional areas domestically and internationally. CSIS has established the **Global Information Infrastructure Commission (GIIC)** (URL - http://www.eds.com/giic/) to foster the development and utilization of information technologies and services in advancing economic growth, education and quality of life in developed and developing countries. GIIC's Internet site provides many links to US and international telecommunication resources.

Center for Telecommunications Research (CTR)
((212)854-2483, fax (212)316-9068, URL - http://www.ctr.columbia.edu/) CTR at Columbia University conducts engineering research and develops educational programs in telecommunications focusing on integrated broadband networks and networks to support mobility including local and wide area nomadic computing with very small portable computers. Their Internet site provides links to mobile computing resources.

Center on Information Technology Accommodation (CITA)
(formerly Clearinghouse on Computer Accommodation - COCA) (URL-http://www.gsa.gov/coca/) CITA, run by the General Services Administration (GSA), serves as a clearinghouse for information on making information and computer systems accessible to all users. Their Internet site provides information on making the National Information Infrastructure accessible to the disabled, related legislation and policies, WWW design guidelines, and links to other resources.

CICNet - Rural Datafication Project
(2901 Hubbard Dr., Ann Arbor MI 48109-2467, (313)998-6103, fax (313)998-6105, URL - http://www.cic.net/) CICNet was founded by the Committee on Institutional Cooperation (CIC) in 1988, and supports cooperative academic programs among the Midwest's major research institutions. They are bringing the Internet to rural communities and K-12 schools in eight Upper Midwest states with the **Rural Datafication Project** funded in part by the National Science Foundation. CICNet houses one of the largest collections of electronic journals accessible on the Internet.

Coalition for Networked Information (CNI)

(21 Dupont Circle, NW, Washington, D.C. 20036, (202)296-5098, URL -
http://www.cni.org/CNI.homepage.html) The Coalition for Networked Information, a joint project of the
Association of Research Libraries, CAUSE, and EDUCOM, promotes the creation of and access to
information resources in networked environments in order to advance scholarship and to enrich intellectual
productivity. The Coalition Task Force representing over 200 institutions and organizations, has initiatives
in economic studies and models, navigation & interoperability, transformation of research, and education.

Colorado Internet Cooperative Association (CICA)

(2525 Arapahoe Ave., Bldg. E4-235, Boulder CO 80302, (303)443-3786, fax (303)443-9718, URL -
http://www.coop.net/coop/) The Coop is a collection of companies and individuals organized to share
Internet resources, at cost in a dedicated and reliable fashion. The Coop is a true legal cooperative and
a member-owned organization, with links to "sister" coops around the country.

The Computer Museum

(303 Congress St., Boston, MA 02210, (617)426-2800, URL - http://www.net.org) The Computer
Museum features over 170 interactive exhibits including the Networked Planet: Traveling the Information
Highway, Walk-Through Computer, multimedia robot show, and one of the most extensive collections of
historical computers and robots in the world. An On-Line Museum is scheduled for March, 1996.

Computer Professionals for Social Responsibility (CPSR)

(PO BOX 717, Palo Alto CA 94302 (415)322-3778, fax (415)322-3798, URL -
http://snyside.sunnyside.com/home) CPSR is a public-interest alliance of computer scientists and others
interested in the impact of computer technology on society. CPSR provides the public and policy makers
with realistic assessments of the power, promise, and limitations of computer technology.

Cross-Industry Working Team (XIWT)

(Reston, VA, URL - http://www.cnri.reston.va.us:3000/XIWT/public.html) XIWT is a multi-industry coalition
committed to defining the architecture and key technical requirements for a powerful, sustainable National
Information Infrastructure (NII). Various white papers on the NII, electronic commerce, nomadicity and
other issues are available on their Internet site.

Discovery Institute

(1201 Third Ave., 40th Floor, Seattle WA 98101-3099, (206)287-3144, fax (206)583-8500, URL -
http://www.discovery.org/) Discovery Institute is a non-profit, non-partisan center for national and
international affairs looking at the application of advanced technology to individual liberty, representative
democracy, free enterprise, internationalism, and the enduring moral principles of civilized society.

Educom

((404)371-1853, fax (404)371-8057, URL-http://www.educom.edu/) Educom serves leaders who manage
information technology in higher education. It offers assistance to its member institutions in order to
address critical issues surrounding the role of information technology in higher education. **Edupage** is a
three-times-a-week electronic newswire summarizing developments in information technology. E-mailed
to you free on request in any of eight available languages. See their Internet site for subscription details.

Electronic Frontier Foundation (EFF)

(PO BOX 170190, San Francisco CA 94117, (415)668-7171, fax (415)668-7007, URL -
http://www.eff.org/) The EFF was founded to ensure that the principles embodied in the Constitution and
Bill of Rights are protected as new communications technologies emerge. They protect common carriage
principles that all network providers carry all speech and are shielded from liability for the actions of users.

EFF supports privacy rights, strong cryptography, broader public access to information, an Open Platform model of the global information infrastructure, and policies to enable public and private information providers to distribute and sell their information products over the Internet. A variety of resources and publications are available to "Netizens" on their Internet site.

Electronic Privacy Information Center (EPIC)

(666 Pennsylvania Ave. SE, Suite 301, Washington, D.C. 20003, (202)544-9240, fax (202)547-5482, URL - http://epic.org/) EPIC is a public interest research center, focusing public attention on emerging civil liberties issues relating to the NII, such as the Clipper Chip, the Digital Telephony proposal, national ID cards, medical record privacy, credit records, and the sale of consumer data. Their Internet site features Policy Archives and an Online Guide to Privacy Resources.

The George Lucas Educational Foundation

(URL - http://www.glef.org/) The George Lucas Educational Foundation promotes innovative efforts to improve education so all students will be prepared to live and work in an increasingly complex world. They advocate educational strategies incorporating communications media and the latest technologies for transforming schools into places where learning is meaningful, challenging, and exciting. The foundation's biannual newsletter Edutopia (current and back issues) is available on their Internet site.

Institute for Computer and Telecommunications Systems Policy (ICTSP)

(at George Washington University, URL - http://www.seas.gwu.edu:80/seas/ictsp/) ICTSP researches the changing nature of telecommunications delivery systems, management information systems, computer networks, compensation for (electronic) intellectual property, and ethics and values among users of computers and communications networks.

Institute for Global Communications (IGC)

(URL - http://www.igc.apc.org/) The IGC serves to expand and inspire movements for environmental sustainability, human and workers' rights, nonviolent conflict resolution, social and economic justice, and women's equality by providing and developing accessible computer networking tools. They host five networks: PeaceNet, Econet, ConflictNet, LaborNet, and WomensNet as well as a good Issues index.

Institute for Policy Innovation (IPI)

(URL - http://www.ipi.org/) IPI is a non-profit public policy "think tank" founded to research, develop and promote innovative and non-partisan solutions to today's public policy problems. IPI focuses on approaches to governing that harness the strengths of individual liberty, limited government, and free markets. A variety of issue reports and policy briefs are available on their Internet site.

Institute of Electrical and Electronic Engineers (IEEE)

(URL - http://www.ieee.org/) IEEE is a non-profit organization, promoting the development and application of electrotechnology and allied sciences for the benefit of humanity, the advancement of the profession, and the well-being of its members. IEEE has technical societies with publications, conferences and support for 37 specialized areas including broadcast technology, communications, computers, information theory, social implications of technology, and systems, man and cybernetics. Their **United States Activity Board (USAB)** has a **Technology Policy Council** with a **Committee on Communications and Information Policy (CCIP)** promoting the formulation of sound legislation, regulation and policies relating to communications, computer and information technology development. Working documents and related position papers are available on the Internet (URL - http://www.ieee.org/usab/DOCUMENTS/FORUM/COMMITTEE/ccip.html).

International Communications Association (ICA)

((800)422-4636, (214)233-3889, fax (214)233-2813, fax-on-demand (214)233-3889 x141) ICA is an independent organization serving the interests of national and multinational telecommunications network application users. ICA represents users of data, voice and video telecommunications equipment and services from over 650 corporations, universities, state and local governments.

International Engineering Consortium

(303 E Wacker Dr., Suite 740, Chicago, IL 60601, (312)938-3500, fax (312)938-8787) The International Engineering Consortium is a cooperative, public service organization dedicated to catalyzing positive change in the information industry and its university communities (ASU and U of A are affiliated). They publish a Telecom Outlook Report and an Annual Review of Communications.

International Telecom Center (ITC)

(URL - http://www.telematrix.com/toc.html) ITC is sponsored by Telematrix and is an Internet site devoted to resources for telecommunications, data communications and networking. They offer Telecom Reports, links to technical and policy resources as well as listings of telecom and datacom conferences.

Internet Engineering Task Force (IETF)

(URL - http://www.ietf.cnri.reston.va.us/home.html) The IETF is the protocol engineering and development arm of the Internet. It is a large, open international community of network designers, operators, vendors, and researchers concerned with the evolution of the Internet architecture and its smooth operation. It is organized into working group and their proceedings are available on their site.

Internet Law Task Force (ILTF)

(URL - http://www.nptn.org/cyber.serv/solon/iltf/index.html) The ILTF is a counterpart to the IETF and acts as a legal policy forum for those concerned with the evolution and growth of the Internet as a global electronic community that balances terrestrially bound and geographically defined interest with the decentralized and transborder nature of internetworked computer communications.

Internet Society

(URL - http://info.isoc.org/home.html) The Internet Society is a non-governmental international organization for global cooperation and coordination for the Internet and its internetworking technologies and applications. The society includes companies, government agencies, and foundations.

MIT Research Program on Communications Policy

(One Amherst St., E40-218, Cambridge MA 02139, (617)253-4138, fax (617)253-7326, URL - http://farnsworth.mit.edu/) The MIT Research Program on Communications Policy works with companies, government, and academic leaders to understand and help set the direction for changes in communications and computer technologies. Current projects include digital information infrastructure and multimedia standardization. Substantial resource materials and reports are available on the Internet. Also visit MIT's **Media Lab** (URL - http://www.media.mit.edu/) for the latest multimedia developments.

Morino Institute

(1801 Robert Fulton Dr. Suite 550, Reston VA 22091, (703)620-8971, fax (703)620-4102, URL - http://www.morino.org/) The Morino Institute is dedicated to opening the doors of opportunity - economic, civic, health, and education - and empowering people to improve their lives and communities in the Communications Age. The Institute has service projects and education programs. Several position papers and a Directory of Public Access Networks are available on their site.

National Association of Development Organizations (NADO)
(444 N Capitol St. NW, Suite 630, Washington, D.C. 20001, (202)624-7806, fax (202)624-8813)
NADO is a public interest group devoted to the promotion of economic development in small metropolitan and rural areas and a leading advocate for a regional approach to economic and community development. Their **Research Foundation** has a **Telecommunications Awareness Project** to promote telecommunications as a tool for economic development, rather than a stumbling block, for small cities and rural areas. They have a brief report (8/95) "Understanding Universal Service: Its Impact on Rural America and Prospects for the Future" and a white paper (4/94) "Telecommunications and its Impact on Rural America."

The National Distance Learning Center
((502)686-4556, URL - http://www.occ.uky.edu/) The NDLC currently is operating two services: a free-to-use database of distance learning information and an Internet access system for Western Kentucky.

National Information Infrastructure Testbed (NIIT)
(600 World Trade Center, 1625 Broadway, Denver CO 80202, (800)299-9973, fax (303)572-5499, URL - http://www.niit.org/) The NIIT consortium was created to accelerate the development and use of national and global information infrastructures by creating practical applications to address real-world needs. NIIT's advanced telecommunications and computing testbed enables interoperability and integration testing on an unprecedented scale and where its members can learn, through practical experience, which applications will drive the information superhighway and emerging markets.

National Public Telecomputing Network (NPTN)
(URL - http://www.nptn.org/) The NPTN is a nonprofit corporation which serves as the parent organization for **"Free-Net"** community computer network systems world wide. NPTN helps local communities organize teams to bring a community computing network system online in rural or metro settings, and further supports affiliates with a growing collection of content called Cybercasting Services.

Pacific Telecommunications Council (PTC)
(URL - http://www.ptc.org/) PTC is an international, non-profit, non-governmental membership organization for providers and users of communications services, policy-makers, technologists, lawyers, scientists and academics. PTC publishes a variety of materials on ideas and issues relevant to telecommunications in the Asia-Pacific region, many are available on their Internet site.

Project Vote Smart
((800)622-7627, URL - http://www.vote-smart.org/) Project Vote Smart's Internet site is a one-stop shopping center for political information linking their own unique database with other Internet sources. They track Congressional members' voting records, administer a National Political Awareness Test, provide issue information, run a **Voter's Research Hotline** and a **Reporter's Resource Center**. They also index federal and state government resources, political parties and ideological organizations.

Progress and Freedom Foundation (PFF)
(URL - http://www.pff.org/) The PFF is a public policy think tank whose mission is to restore, renew, and recreate America's sense of its future, a future woven inextricably with the ideas of progress and freedom. Their **Cyberspace and the American Dream** project explores the consequences and the direct policy implications of the information revolution. Background and positions can be found on their Internet site.

The Rand Corporation

(Headquarters - 1700 Main St., Santa Monica CA 90401-3297, (310)393-0411, fax (310)393-4818; Washington Research Office - 2100 M St. NW, Washington, D.C. 20037-1270, (202)296-5000, fax (202)296-7960, URL - http://www.rand.org/) RAND is a nonprofit institution that helps improve public policy through research and analysis. Following their inception after World War II, RAND focused on national security but since has come to address problems of domestic policy helping policy makers strengthen the nation's economy, maintain its security, and improve its quality of life. Their Internet site features bibliographies of their major research areas and issues of the **RAND Research Review** (Fall, 1995 was on Information War and Cyberspace Security). Of significance to the Universal Service/Access debate is their recent study "Universal Access to E-Mail: Feasibility and Societal Implications," available online.

Rural Consumers Coalition for the Advancement of Telecommunications

(URL- http://policy.net/rural/) Composed of organizations, individuals and businesses representing rural consumers of telecommunications who have united because of their concerns about the future of telecommunications in rural America. The purpose of the coalition is to impact telecommunications legislation and subsequent regulatory proceedings implementing such legislation. Their Internet site has background and analysis of pending Federal legislation and other rural telecommunications resources.

Smart Valley, Inc.

(2520 Mission College Blvd., Suite 202, Santa Clara, CA 95054, (408)562-7707, fax (408)562-7677, URL - http://www.svi.org/) The Smart Valley vision is to create an electronic community in the Bay Area by developing an advanced information infrastructure and the collective ability to use it. As a public-private coalition, their mission is to facilitate the construction of pervasive, high speed communications system and information services that will benefit all sectors of the community and drive economic development.

The Society for Electronic Access (SEA)

(PO Box 7081, New York, NY 10116-7081, (212)592-3801, URL - http://www.sea.org/) SEA promotes civil liberties and access in cyberspace for everyone. They work to educate people about computer networks, and how to use them to find information and to communicate with one another.

Southern Growth Policies Board

(PO BOX 12293, Research Triangle Park NC 27709, (919)941-5145, fax (919)941-5594) The Southern Growth Policies Board seeks to promote regional economic development (14 Southern states + 1 territory) by harmonizing state telecommunications regulation. They have several publications profiling telecommunications regulation and promoting an agenda of related policies and principles.

The Taxpayers Assets Project (TAP) & The Consumer Project on Technology (CPT)

(PO BOX 19367, Washington, D.C. 20036, (202)387-8030, fax (202)234-5176, URL - http://www.essential.org/tap/) TAP was founded by Ralph Nader in 1988 to monitor the management and sale of government property. It now focuses on: public access to government information; natural resources and public lands; pricing of drugs developed with Federal funds; telecommunications policy. Their Consumer Project on Technology concentrates on telecommunications regulation, ISDN pricing, fair use under the copyright laws, and the impact of technology on personal privacy.

Tech Corps

(URL - http://www.ustc.org/) Tech Corps is a national, non-profit organization of technology volunteers, funded by the business community, helping to improve K-12 education at the grass roots, through the effective integration of technology into the learning environment. They plan to be operating in all states by the beginning of the Fall, 1996 school year and actively recruiting school districts for participation.

Town Hall

(214 Massachusetts Ave. NE, Washington, D.C. 20002, (800)441-4142, (202)547-6368, fax (202)544-7330, URL - http://www.townhall.com/) Town Hall is a interactive community on the Internet bringing Internet users and public policy organizations together under the broad umbrella of "conservative" thoughts, ideas, and actions. Their goal is to become a mall of ideas in which people congregate to exchange, discuss, and disseminate the latest news, views, and information through electronic medium.

U.S. Chamber of Commerce

((202)463-5560, URL - http://www.uschamber.org/) The U.S. Chamber of Commerce is a coalition of the local and state Chambers of Commerce and represents their interests at the national level. They develop and promote policy on many issues, and their **Telecommunication Infrastructure Task Force** is active in the telecom infrastructure debate representing the small business users with community emphasis.

Voters Telecommunications Watch (VTW)

(URL- http://www.vtw.org/) VTW is a volunteer organization, concentrating on legislation as it relates to telecommunications and civil liberties. They publish a weekly BillWatch when Congress is in session, have a technology pledge and questionnaire for politicians, host a Congressional directory service, and have other legislative information and links to activist policy groups.

World Future Society (WFS)

(7910 Woodmont Ave., Suite 450, Bethesda MD 20814, (800)989-8274, (301)656-8274, fax (301)951-0394, URL - http://www.tmn.com/wfs/wfshome.html) WFS is an association of people interested in how social and technological developments are shaping the future, serving as a neutral clearinghouse for forecasts, recommendations, and alternatives.

Publishers & Publications:

 (Note: This section only includes periodicals particularly relevant to telecommunications policy. In Appendix C, you will find Internet links to quite a few others that have a broader computer or technological reach or a general public policy and information scope.

Angus TeleManagement Group

(8 Old Kingston Rd., Ajax, Ontario, Canada L1T 2Z7, (905)686-5050, fax (905)686-2655, URL - http://www.angustel.ca/) Angus TeleManagement Group is an independent consulting and research firm, specializing in business telecommunications, supporting clients across Canada and around the world, providing a full range of advisory services. Their weekly **Telecom Update** is available online as is some content and indexes for their monthly subscription **Telemanagement** and details about their reports.

AT&T Technology Magazine

(URL - http://www.att.com/att-technology/) AT&T's quarterly periodical is available online in Adobe PDF format as well as access to some other telecom resources.

BRP Publications

(1333 H St., NW, 2nd Floor - West, Washington, D.C., 20005, (800)822-6338, URL - http://brpinc.com/brp/) BRP Publications provides information on telecommunication, multimedia, data networking, and human resources. BRP's Telecommunications Group publishes **Telecommunications Reports, TR Daily, Communications Billing Report, State & Local Communications Report, TR Wireless News, Telco Competition Report, The Cable-Telco Report** and **Communications Business & Finance**. Their Multimedia Group publishes another 8 titles including **Information & Interactive Services Report, Multimedia Daily** and **Report on Electronic Commerce**. Lead stories to all these newsletters can be found online as well as information on BRP's reports and links to telecom related sites.

Educom

(URL - http://www.educom.edu/) Educom (described in above section) provides 3 periodicals. **Edupage** is a free three-times-a-week electronic newswire (available in 8 languages) summarizing developments in information technology and sent to your e-mail address. **Educom Update** (twice monthly) covers the organization and education issues. **Educom Review** (bimonthly print magazine at $18/year) explores the convergence of learning, communications, and information technology.

Federal Communications Law Journal

(URL - http://www.law.indiana.edu/fclj/) Selected full issues are available online including the classic December, 1994 Special Issue on the Sixtieth Anniversary of the Communications Act of 1934.

Government Technology

(9719 Lincoln Village Dr. Suite 500, Sacramento, CA 95827, (916)363-5000, (916)363-5197, URL - http://www.GOVTECH.net/) This free monthly trade publication covers government projects and solutions as well as resources for governance in the information age. Current and back issues (1989 on) are available online as well as information on conferences, links to other Web sites and other resources.

Jupiter Communications

(627 Broadway, New York, NY 10012, (212)780-6060x113, URL - http://www.jup.com/) Jupiter Communications is a New York City-based research, consulting and publishing firm specializing in emerging consumer online and interactive technologies. On their Internet site are excerpts of their newsletters and reports plus the Yahoo!/Jupiter Web User Survey Report (demographic research.).

Law Journal Extra! (LJX)

(URL - http://www.ljx.com/) LJX provides a wealth of online legal news and resources. They also host online forums on **Business and Legal Aspects of the Internet and Online Services** (moderated by Lance Rose of Phoenix's Lewis & Roca) and **Intellectual Property Rights in the Electronic Age**.

The Network Observer (TNO)

(URL - http://communication.ucsd.edu/pagre/tno.html) The Network Observer is a free on-line newsletter about networks and democracy. Current and back issues are available as well as useful Internet links.

Phillips Business Information, Inc.

(1201 Seven Locks Rd., Potomac, MD 20854, (800)777-5006, URL - http://www.phillips.com:3200/) Phillips Business Information Inc. publishes a broad range of high quality information products for distinct business markets. Their subscription newsletters include **Washington Telecom News, Global Telecom Report, Local Telecom Competition News, Broadband Networking News, Interactive Video News, Land Mobile Radio News,** and **Wireless Business and Finance**. Their Internet site features content and resources from their **Internet Week** and **Defense Daily** publications.

Public Utilities Fortnightly

(PO Box 1110, Pearl River, NY 10965-9934, (800)421-4494, fax (914)735-5411) This subscription print magazine focuses on public utility energy business but also covers telecommunications.

Public Utility Report (PUR) Utility Weekly

(8229 Boone Blvd. Suite 401, Vienna, VA 22182, (800)368-5001) PUR covers state commission rulings and federal regulatory issues for public utilities, mostly energy with some telecommunications content.

Quality Education Data (QED)

(1600 Broadway, 12th Floor, Denver, CO 80202-4912, (800)525-5811, (303)860-1832, fax (303)860-0238) QED publishes a variety of educational technology surveys and reports including "Networks Now 1995: A Survey of How Schools Use Telecommunications Networks in Education," "Educational Technology Trends," "Technology in Public Schools," "Technology Purchasing Forecast," and directories of educational staff (i.e., Library Media Specialists, Technology Coordinators).

Telecom Digest

(URL - http://www.wiltel.com/telecom/) Telecom Digest is an electronic journal with WWW access provided by LDDS WorldCom Network. It also appears as a Usenet moderated newsgroup (**comp.dcom.telecom**) devoted mostly but not exclusively to telecommunications topics. It features telecom FAQs, articles by George Gilder and access to an online Telecom Library.

The Telecomm Publishing Group

(PO Box 1455, Alexandra, VA 22313-2055, (800)327-7205, URL - http://guess.worldweb.net/tpg/) TPG has been covering the telecommunications industry for more than 10 years with newsletter, reports and conferences. Their newsletters include **FCC Report, State Telephone Regulation Report, Local Competition Report, Telco Business Report, The Report on AT&T, Interactive TV Strategies**, and **Mobile Data Report**. Their online **Telecom Information Clearinghouse (TIC)** features **Telecom AM** (daily top stories), Telecom Lingo Guide Online, and access to extensive telecom Internet links.

Telecommunications Magazine

(URL - http://www.telecoms-mag.com/) Telecommunications is a technology and business monthly for communications professionals. Their Internet site features recent issues and selected articles as well as information on upcoming trade shows and the telecom industry.

Telecomreg

(URL - http://www.wiltel.com/telecomr/) This e-mail discussion list (**telecomreg**) has been established to facilitate discussion about telecommunications regulation on the local, state, and federal levels. Regulatory issues involving cable, broadcasting, telephony, and data transmission are covered, as are related economic and social issues. LDDS WorldCom Network (as they do for Telecom Digest above) provides WWW access to the archive. Free subscription information can be found online.

Voice of America (VOA)

((202)619-2538, URL - gopher://gopher.voa.gov:70/11/) VOA is one of the top three international broadcasters (along with BBC and Radio Moscow) reaching an estimated 92 million listeners worldwide. VOA provides Internet access to their wire service news, audio clips to download, radio program and frequency schedules, Worldnet TV schedules and satellite downlink information, and more.

Washington Researchers

(PO Box 19005, Washington, D.C. 20036-9005, (202)233-3499) Washington Researchers publish a wide range of directories, handbooks, and newsletters for the executive and professional researcher. Their subscription newsletters on traditional (print) sources, **The Washington Report** and **The International Information Report**, are now complemented by **The Information Freeway Report**, featuring the best and newest of business and government information resources available online.

Washington Telecom Newswire

(URL - http://www.com/wtn/) Washington Telecom Newswire is a subscription service offering same day, accurate, spot news coverage of events primarily in Washington, D.C., affecting the telecommunications industry. Coverage includes significant legislation on Capitol Hill, activities at the FCC and issues before the courts. Sample articles are available on their Internet site.

WIRED - HotFlash/HotWired

(URL - http://www.hotwired.com/) HotFlash is a weekly newsletter of HotWired send on request to your e-mail inbox. On WIRED's Internet site, their is a wide range of information and resources on telecom related issues, computer and media driven social change, and cyberculture.

Ziff-Davis Publishing/ZDNet

(URL - http://www.zdnet.com/) Ziff-Davis Publishing's home on the net features content from their many technology periodicals including Computer Gaming, Computer Life, Computer Shopper, Inter@ctive, Internet Life, PC Computing, PC Magazine, PC Week, Mac User, Mac Week and Windows.

UNIVERSAL SERVICE TO UNIVERSAL ACCESS

Appendix C - Summary of Telecommunication Policy Resources on the Internet

Note:

This appendix is from the report **"Universal Service to Universal Access: The Paradigm Shift in Citizens' Use of Telecommunications."** The content is © 1995 by International Research Center and the sole property of the State of Arizona (Contract No. A6-0028-001) with all rights reserved.

Internet resources and sites are dynamic in nature. Locations (URLs) change, useful sites become temporarily unavailable or go away entirely, and new sites arise and flourish. In this actively evolving web of information resources, use these starting points for your own telecommunications policy explorations. Please notify **International Research Center** (Mark Goldstein at voice & fax (602)470-0389, e-mail - markg@xroads.com) of sites that become unavailable or new resources you've uncovered. The contents of the report and this appendix should become available in updated form on a Web site to be developed by the **Arizona Governor's Office of Telecommunications Policy** (John B. Kelly, Executive Director at voice (602)542-0142, fax (602)542-0134, e-mail - jkelly@ad.state.az.us).